

Sample Identification
TP-3, 2-4
SA12358-02

Client Project #
MEP04127

Matrix
Soil

Collection Date/Time
07-May-04 09:21

Received
13-May-04

Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
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Volatile Organic Compounds

Volatile Organic Compounds by SW846 8260B

Prepared by method SW846 5035A

2-Hexanone (MBK)	BRL	67.5 ug/kg dry	1	SW846 8260B	18-May-04	19-May-04	4051078	ZZZ	
Isopropylbenzene	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
4-Isopropyltoluene	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
Methyl tert-butyl ether	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	BRL	67.5 ug/kg dry	1	"	"	"	"	"	
Methylene chloride	BRL	67.5 ug/kg dry	1	"	"	"	"	"	
Naphthalene	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
n-Propylbenzene	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
Styrene	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
Tetrachloroethene	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
Toluene	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
1,2,3-Trichlorobenzene	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
1,2,4-Trichlorobenzene	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
1,1,1-Trichloroethane	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
1,1,2-Trichloroethane	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
Trichloroethene	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
Trichlorofluoromethane (Freon 11)	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
1,2,3-Trichloropropane	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
1,2,4-Trimethylbenzene	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
1,3,5-Trimethylbenzene	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
Vinyl chloride	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
m,p-Xylene	BRL	13.5 ug/kg dry	1	"	"	"	"	"	
o-Xylene	BRL	6.7 ug/kg dry	1	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	95.2	70-130 %		"	"	"	"	"	
Surrogate: Toluene-d8	103	70-130 %		"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	108	70-130 %		"	"	"	"	"	
Surrogate: Dibromofluoromethane	102	70-130 %		"	"	"	"	"	

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*Reportable Detection Limit

BRL = Below Reporting Limit

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VIL_RESP05499

Sample IdentificationTP-3, 2-4
SA12358-02Client Project #

MEP04127

Matrix

Soil

Collection Date/Time

07-May-04 09:21

Received

13-May-04

<u>Analyte(s)</u>	<u>Result</u>	<u>*RDL/Units</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Batch</u>	<u>Analyst</u>	<u>Flag</u>
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General Chemistry Parameters

% Solids	83.5	%	1	SM2540 G Mod.	13-May-04	14-May-04	4050825	LN	
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Sample IdentificationTP-4, 2-4
SA12358-03Client Project #

MEP04127

Matrix

Soil

Collection Date/Time

07-May-04 09:55

Received

13-May-04

Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
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Volatile Organic Compounds

VOC Extraction	Field Extracted	N/A	1	VOC	13-May-04	13-May-04	4050847	LN	
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Volatile Organic Compounds by SW846 8260B

Prepared by method SW846 5030 Soil MS

VOC10

Acetone	BRL	23400 ug/kg dry	1000	SW846 8260B	14-May-04	14-May-04	4050875	tim	
Acrylonitrile	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Benzene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Bromobenzene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Bromochloromethane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Bromodichloromethane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Bromoform	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Bromomethane	BRL	2340 ug/kg dry	1000	"	"	"	"	"	
2-Butanone (MEK)	BRL	11700 ug/kg dry	1000	"	"	"	"	"	
n-Butylbenzene	2,570	1170 ug/kg dry	1000	"	"	"	"	"	
sec-Butylbenzene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
tert-Butylbenzene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Carbon disulfide	BRL	5840 ug/kg dry	1000	"	"	"	"	"	
Carbon tetrachloride	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Chlorobenzene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Chloroethane	BRL	2340 ug/kg dry	1000	"	"	"	"	"	
Chloroform	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Chloromethane	BRL	2340 ug/kg dry	1000	"	"	"	"	"	
2-Chlorotoluene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
4-Chlorotoluene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	BRL	2340 ug/kg dry	1000	"	"	"	"	"	
Dibromochloromethane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,2-Dibromoethane (EDB)	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Dibromomethane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,2-Dichlorobenzene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,3-Dichlorobenzene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,4-Dichlorobenzene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Dichlorodifluoromethane (Freon12)	BRL	2340 ug/kg dry	1000	"	"	"	"	"	
1,1-Dichloroethane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,2-Dichloroethane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,1-Dichloroethene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
cis-1,2-Dichloroethene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
trans-1,2-Dichloroethene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,2-Dichloropropane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,3-Dichloropropane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
2,2-Dichloropropane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,1-Dichloropropene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
cis-1,3-Dichloropropene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
trans-1,3-Dichloropropene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Ethylbenzene	5,440	1170 ug/kg dry	1000	"	"	"	"	"	
Hexachlorobutadiene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	

VIL_RESP05501

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*Reportable Detection Limit BRL = Below Reporting Limit

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Sample IdentificationTP-4, 2-4
SA12358-03Client Project #

MEP04127

Matrix

Soil

Collection Date/Time

07-May-04 09:55

Received

13-May-04

Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
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Volatile Organic CompoundsVolatile Organic Compounds by SW846 8260B

Prepared by method SW846 5030 Soil MS

VOC10

2-Hexanone (MBK)	BRL	11700 ug/kg dry	1000	SW846 8260B	14-May-04	14-May-04	4050875	tim	
Isopropylbenzene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
4-Isopropyltoluene	2,100	1170 ug/kg dry	1000	"	"	"	"	"	
Methyl tert-butyl ether	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	BRL	11700 ug/kg dry	1000	"	"	"	"	"	
Methylene chloride	BRL	11700 ug/kg dry	1000	"	"	"	"	"	
Naphthalene	16,700	1170 ug/kg dry	1000	"	"	"	"	"	
n-Propylbenzene	3,340	1170 ug/kg dry	1000	"	"	"	"	"	
Styrene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Tetrachloroethene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Toluene	4,320	1170 ug/kg dry	1000	"	"	"	"	"	
1,2,3-Trichlorobenzene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,2,4-Trichlorobenzene	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,1,1-Trichloroethane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,1,2-Trichloroethane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
Trichlorofluoromethane (Freon 11)	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,2,3-Trichloropropane	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
1,2,4-Trimethylbenzene	50,900	1170 ug/kg dry	1000	"	"	"	"	"	
1,3,5-Trimethylbenzene	24,400	1170 ug/kg dry	1000	"	"	"	"	"	
Vinyl chloride	BRL	1170 ug/kg dry	1000	"	"	"	"	"	
m,p-Xylene	26,400	2340 ug/kg dry	1000	"	"	"	"	"	
o-Xylene	2,990	1170 ug/kg dry	1000	"	"	"	"	"	

Surrogate: 4-Bromofluorobenzene	98.0	70-130 %	"	"	"	"	"	"	
Surrogate: Toluene-d8	97.4	70-130 %	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	106	70-130 %	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane	107	70-130 %	"	"	"	"	"	"	

Gasoline Range Organics

Prepared by method SW846 5030 Soil MS

Gasoline Range Organics	837	90.4 mg/kg dry	500	ME GRO	18-May-04	19-May-04	4051118	kw	
Surrogate: 4-Bromofluorobenzene (FID)	88.4	0-200 %	"	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene (PID)	96.2	0-200 %	"	"	"	"	"	"	

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VIL_RESP05502

*Reportable Detection Limit BRL = Below Reporting Limit

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Sample IdentificationTP-4, 2-4
SA12358-03Client Project #

MEP04127

Matrix

Soil

Collection Date/Time

07-May-04 09:55

Received

13-May-04

<i>Analyte(s)</i>	<i>Result</i>	<i>*RDL/Units</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Batch</i>	<i>Analyst</i>	<i>Flag</i>
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General Chemistry Parameters

% Solids	53.3	%	1	SM2540 G Mod.	13-May-04	14-May-04	4050825	LN	
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Sample IdentificationSS-1
SA12358-04Client Project #

MEP04127

Matrix

Soil

Collection Date/Time

07-May-04 17:48

Received

13-May-04

Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
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Semivolatile Organic Compounds by GCPolychlorinated Biphenyls by SW846 8082

Prepared by method SW846 3550B

PCB 1016	BRL	32.4 ug/kg dry	1	SW846 8082	17-May-04	18-May-04	4050953	MP	
PCB 1221	BRL	32.4 ug/kg dry	1	"	"	"	"	"	
PCB 1232	BRL	32.4 ug/kg dry	1	"	"	"	"	"	
PCB 1242	BRL	32.4 ug/kg dry	1	"	"	"	"	"	
PCB 1248	BRL	32.4 ug/kg dry	1	"	"	"	"	"	
PCB 1254	BRL	32.4 ug/kg dry	1	"	"	"	"	"	
PCB 1260	BRL	32.4 ug/kg dry	1	"	"	"	"	"	
PCB 1262	BRL	32.4 ug/kg dry	1	"	"	"	"	"	
PCB 1268	BRL	32.4 ug/kg dry	1	"	"	"	"	"	

Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	55.6	40-140 %	"	"	"	"	"	"	
Surrogate: Decachlorobiphenyl (Sr)	55.6	40-140 %	"	"	"	"	"	"	

General Chemistry Parameters

% Solids	93.3	%	1	SM2540 G Mod.	13-May-04	14-May-04	4050825	LN	
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VIL_RESP05504

*Reportable Detection Limit BRL = Below Reporting Limit

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Sample IdentificationSS-2
SA12358-05Client Project #

MEP04127

Matrix

Soil

Collection Date/Time

07-May-04 17:52

Received

13-May-04

Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
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Semivolatile Organic Compounds by GCPolychlorinated Biphenyls by SW846 8082

Prepared by method SW846 3550B

PCB 1016	BRL	31.6 ug/kg dry	1	SW846 8082	17-May-04	18-May-04	4050953	MP	
PCB 1221	BRL	31.6 ug/kg dry	1	"	"	"	"	"	
PCB 1232	BRL	31.6 ug/kg dry	1	"	"	"	"	"	
PCB 1242	BRL	31.6 ug/kg dry	1	"	"	"	"	"	
PCB 1248	BRL	31.6 ug/kg dry	1	"	"	"	"	"	
PCB 1254	BRL	31.6 ug/kg dry	1	"	"	"	"	"	
PCB 1260	BRL	31.6 ug/kg dry	1	"	"	"	"	"	
PCB 1262	BRL	31.6 ug/kg dry	1	"	"	"	"	"	
PCB 1268	BRL	31.6 ug/kg dry	1	"	"	"	"	"	

Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	63.9	40-140 %		"	"	"	"	"	
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Surrogate: Decachlorobiphenyl (Sr)	69.0	40-140 %		"	"	"	"	"	
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General Chemistry Parameters

% Solids	89.2	%	1	SM2540 G Mod.	13-May-04	14-May-04	4050825	LN	
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VIL_RESP05505

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*Reportable Detection Limit BRL = Below Reporting Limit

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Sample IdentificationSS-3
SA12358-06Client Project #

MEP04127

Matrix

Soil

Collection Date/Time

12-May-04 15:40

Received

13-May-04

Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
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Semivolatile Organic Compounds by GCPolychlorinated Biphenyls by SW846 8082

Prepared by method SW846 3550B

PCB 1016	BRL	28.8 ug/kg dry	1	SW846 8082	17-May-04	18-May-04	4050953	MP	
PCB 1221	BRL	28.8 ug/kg dry	1	"	"	"	"	"	
PCB 1232	BRL	28.8 ug/kg dry	1	"	"	"	"	"	
PCB 1242	BRL	28.8 ug/kg dry	1	"	"	"	"	"	
PCB 1248	BRL	28.8 ug/kg dry	1	"	"	"	"	"	
PCB 1254	BRL	28.8 ug/kg dry	1	"	"	"	"	"	
PCB 1260	BRL	28.8 ug/kg dry	1	"	"	"	"	"	
PCB 1262	BRL	28.8 ug/kg dry	1	"	"	"	"	"	
PCB 1268	BRL	28.8 ug/kg dry	1	"	"	"	"	"	

Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	55.6	40-140 %		"	"	"	"	"	
Surrogate: Decachlorobiphenyl (Sr)	63.2	40-140 %		"	"	"	"	"	

General Chemistry Parameters

% Solids	94.2	%	1	SM2540 G Mod.	13-May-04	14-May-04	4050825	LN	
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Sample IdentificationSS-4
SA12358-07Client Project #

MEP04127

Matrix

Soil

Collection Date/Time

12-May-04 15:45

Received

13-May-04

Analyte(s)	Result	*RDL/Units	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst	Flag
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Total Metals by EPA 6000/7000 Series Methods, Prepared by SW846 3050B

Mercury	BRL	0.170 mg/kg dry	1	SW846 7471A	17-May-04	18-May-04	4051033	YP	
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Total Metals by EPA 200 Series Methods

Silver	BRL	1.94 mg/kg dry	1	EPA 200.7	17-May-04	17-May-04	4051032	CR	
Arsenic	12.8	2.92 mg/kg dry	1	"	"	"	"	"	
Barium	47.4	0.972 mg/kg dry	1	"	"	"	"	"	
Cadmium	BRL	0.486 mg/kg dry	1	"	"	"	"	"	
Chromium	15.4	0.972 mg/kg dry	1	"	"	"	"	"	
Lead	34.5	1.46 mg/kg dry	1	"	"	"	"	"	
Selenium	BRL	2.92 mg/kg dry	1	"	"	"	"	"	

General Chemistry Parameters

% Solids	97.6	%	1	SM2540 G Mod.	13-May-04	14-May-04	4050825	LN	
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VIL_RESP05507*This laboratory report is not valid without an authorized signature on the cover page.*

*Reportable Detection Limit BRL = Below Reporting Limit

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Sample Identification
SS-5
SA12358-08

Client Project #
MEP04127

Matrix
Soil

Collection Date/Time
12-May-04 15:50

Received
13-May-04

<u>Analyte(s)</u>	<u>Result</u>	<u>*RDL/Units</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Batch</u>	<u>Analyst</u>	<u>Flag</u>
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Total Metals by EPA 6000/7000 Series Methods, Prepared by SW846 3050B

Mercury	BRL	0.171 mg/kg dry	1	SW846 7471A	17-May-04	18-May-04	4051033	YP	
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Total Metals by EPA 200 Series Methods

Silver	BRL	1.87 mg/kg dry	1	EPA 200.7	17-May-04	17-May-04	4051032	CR	
Arsenic	15.6	2.80 mg/kg dry	1	"	"	"	"	"	
Barium	24.1	0.934 mg/kg dry	1	"	"	"	"	"	
Cadmium	BRL	0.467 mg/kg dry	1	"	"	"	"	"	
Chromium	17.6	0.934 mg/kg dry	1	"	"	"	"	"	
Lead	49.5	1.40 mg/kg dry	1	"	"	"	"	"	
Selenium	BRL	2.80 mg/kg dry	1	"	"	"	"	"	

General Chemistry Parameters

% Solids	97.1	%	1	SM2540 G Mod.	13-May-04	14-May-04	4050825	LN	
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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4050875 - SW846 5030 Soil MS										
Blank (4050875-BLK1)				Prepared & Analyzed: 14-May-04						
Acetone	BRL	20.0	ug/kg wet							
Acrylonitrile	BRL	1.0	ug/kg wet							
Benzene	BRL	1.0	ug/kg wet							
Bromobenzene	BRL	1.0	ug/kg wet							
Bromochloromethane	BRL	1.0	ug/kg wet							
Bromodichloromethane	BRL	1.0	ug/kg wet							
Bromoform	BRL	1.0	ug/kg wet							
Bromomethane	BRL	2.0	ug/kg wet							
2-Butanone (MEK)	BRL	10.0	ug/kg wet							
n-Butylbenzene	BRL	1.0	ug/kg wet							
sec-Butylbenzene	BRL	1.0	ug/kg wet							
tert-Butylbenzene	BRL	1.0	ug/kg wet							
Carbon disulfide	BRL	5.0	ug/kg wet							
Carbon tetrachloride	BRL	1.0	ug/kg wet							
Chlorobenzene	BRL	1.0	ug/kg wet							
Chloroethane	BRL	2.0	ug/kg wet							
Chloroform	BRL	1.0	ug/kg wet							
Chloromethane	BRL	2.0	ug/kg wet							
2-Chlorotoluene	BRL	1.0	ug/kg wet							
4-Chlorotoluene	BRL	1.0	ug/kg wet							
1,2-Dibromo-3-chloropropane	BRL	2.0	ug/kg wet							
Dibromochloromethane	BRL	1.0	ug/kg wet							
1,2-Dibromoethane (EDB)	BRL	1.0	ug/kg wet							
Dibromomethane	BRL	1.0	ug/kg wet							
1,2-Dichlorobenzene	BRL	1.0	ug/kg wet							
1,3-Dichlorobenzene	BRL	1.0	ug/kg wet							
1,4-Dichlorobenzene	BRL	1.0	ug/kg wet							
Dichlorodifluoromethane (Freon12)	BRL	2.0	ug/kg wet							
1,1-Dichloroethane	BRL	1.0	ug/kg wet							
1,2-Dichloroethane	BRL	1.0	ug/kg wet							
1,1-Dichloroethene	BRL	1.0	ug/kg wet							
cis-1,2-Dichloroethene	BRL	1.0	ug/kg wet							
trans-1,2-Dichloroethene	BRL	1.0	ug/kg wet							
1,2-Dichloropropane	BRL	1.0	ug/kg wet							
1,3-Dichloropropane	BRL	1.0	ug/kg wet							
2,2-Dichloropropane	BRL	1.0	ug/kg wet							
1,1-Dichloropropene	BRL	1.0	ug/kg wet							
cis-1,3-Dichloropropene	BRL	1.0	ug/kg wet							
trans-1,3-Dichloropropene	BRL	1.0	ug/kg wet							
Ethylbenzene	BRL	1.0	ug/kg wet							
Hexachlorobutadiene	BRL	1.0	ug/kg wet							
2-Hexanone (MBK)	BRL	10.0	ug/kg wet							
Isopropylbenzene	BRL	1.0	ug/kg wet							
4-Isopropyltoluene	BRL	1.0	ug/kg wet							
Methyl tert-butyl ether	BRL	1.0	ug/kg wet							
4-Methyl-2-pentanone (MIBK)	BRL	10.0	ug/kg wet							
Methylene chloride	BRL	10.0	ug/kg wet							
Naphthalene	BRL	1.0	ug/kg wet							
n-Propylbenzene	BRL	1.0	ug/kg wet							
Styrene	BRL	1.0	ug/kg wet							
1,1,1,2-Tetrachloroethane	BRL	1.0	ug/kg wet							
1,1,2,2-Tetrachloroethane	BRL	1.0	ug/kg wet							
Tetrachloroethene	BRL	1.0	ug/kg wet							
Toluene	BRL	1.0	ug/kg wet							

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*Reportable Detection Limit BRL = Below Reporting Limit

VIL_RESP05509

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4050875 - SW846 5030 Soil MS										
Blank (4050875-BLK1)				Prepared & Analyzed: 14-May-04						
1,2,3-Trichlorobenzene	BRL	1.0	ug/kg wet							
1,2,4-Trichlorobenzene	BRL	1.0	ug/kg wet							
1,1,1-Trichloroethane	BRL	1.0	ug/kg wet							
1,1,2-Trichloroethane	BRL	1.0	ug/kg wet							
Trichloroethene	BRL	1.0	ug/kg wet							
Trichlorofluoromethane (Freon 11)	BRL	1.0	ug/kg wet							
1,2,3-Trichloropropane	BRL	1.0	ug/kg wet							
1,2,4-Trimethylbenzene	BRL	1.0	ug/kg wet							
1,3,5-Trimethylbenzene	BRL	1.0	ug/kg wet							
Vinyl chloride	BRL	1.0	ug/kg wet							
m,p-Xylene	BRL	2.0	ug/kg wet							
o-Xylene	BRL	1.0	ug/kg wet							
Surrogate: 4-Bromofluorobenzene	51.0		ug/kg wet	50.0		102	70-130			
Surrogate: Toluene-d8	51.8		ug/kg wet	50.0		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	49.9		ug/kg wet	50.0		99.8	70-130			
Surrogate: Dibromofluoromethane	50.6		ug/kg wet	50.0		101	70-130			
Matrix Spike (4050875-MS1)				Source: SA12384-01	Prepared & Analyzed: 14-May-04					
Benzene	17.5		ug/kg dry	20.0	BRL	87.5	70-130			
Chlorobenzene	17.6		ug/kg dry	20.0	BRL	88.0	70-130			
1,1-Dichloroethene	14.2		ug/kg dry	20.0	BRL	71.0	70-130			
Toluene	18.4		ug/kg dry	20.0	BRL	92.0	70-130			
Trichloroethene	16.6		ug/kg dry	20.0	BRL	83.0	70-130			
Surrogate: 4-Bromofluorobenzene	48.6		ug/kg dry	50.0		97.2	70-130			
Surrogate: Toluene-d8	50.5		ug/kg dry	50.0		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	46.8		ug/kg dry	50.0		93.6	70-130			
Surrogate: Dibromofluoromethane	50.4		ug/kg dry	50.0		101	70-130			
Matrix Spike Dup (4050875-MSD1)				Source: SA12384-01	Prepared & Analyzed: 14-May-04					
Benzene	18.1		ug/kg dry	20.0	BRL	90.5	70-130	3.37	30	
Chlorobenzene	18.0		ug/kg dry	20.0	BRL	90.0	70-130	2.25	30	
1,1-Dichloroethene	14.6		ug/kg dry	20.0	BRL	73.0	70-130	2.78	30	
Toluene	18.7		ug/kg dry	20.0	BRL	93.5	70-130	1.62	30	
Trichloroethene	17.8		ug/kg dry	20.0	BRL	89.0	70-130	6.98	30	
Surrogate: 4-Bromofluorobenzene	47.0		ug/kg dry	50.0		94.0	70-130			
Surrogate: Toluene-d8	49.8		ug/kg dry	50.0		99.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	44.7		ug/kg dry	50.0		89.4	70-130			
Surrogate: Dibromofluoromethane	49.4		ug/kg dry	50.0		98.8	70-130			
Batch 4051078 - SW846 5035A										
Blank (4051078-BLK1)				Prepared: 18-May-04 Analyzed: 19-May-04						
Acetone	BRL	100	ug/kg wet							
Acrylonitrile	BRL	5.0	ug/kg wet							
Benzene	BRL	5.0	ug/kg wet							
Bromobenzene	BRL	5.0	ug/kg wet							
Bromochloromethane	BRL	5.0	ug/kg wet							
Bromodichloromethane	BRL	5.0	ug/kg wet							
Bromoform	BRL	5.0	ug/kg wet							
Bromomethane	BRL	10.0	ug/kg wet							
2-Butanone (MEK)	BRL	50.0	ug/kg wet							
n-Butylbenzene	BRL	5.0	ug/kg wet							
sec-Butylbenzene	BRL	5.0	ug/kg wet							
tert-Butylbenzene	BRL	5.0	ug/kg wet							
Carbon disulfide	BRL	25.0	ug/kg wet							
Carbon tetrachloride	BRL	5.0	ug/kg wet							

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*Reportable Detection Limit BRL = Below Reporting Limit

VIL_RESP05510

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4051078 - SW846 5035A										
Blank (4051078-BLK1)				Prepared: 18-May-04 Analyzed: 19-May-04						
Chlorobenzene	BRL	5.0	ug/kg wet							
Chloroethane	BRL	10.0	ug/kg wet							
Chloroform	BRL	5.0	ug/kg wet							
Chloromethane	BRL	10.0	ug/kg wet							
2-Chlorotoluene	BRL	5.0	ug/kg wet							
4-Chlorotoluene	BRL	5.0	ug/kg wet							
1,2-Dibromo-3-chloropropane	BRL	10.0	ug/kg wet							
Dibromochloromethane	BRL	5.0	ug/kg wet							
1,2-Dibromoethane (EDB)	BRL	5.0	ug/kg wet							
Dibromomethane	BRL	5.0	ug/kg wet							
1,2-Dichlorobenzene	BRL	5.0	ug/kg wet							
1,3-Dichlorobenzene	BRL	5.0	ug/kg wet							
1,4-Dichlorobenzene	BRL	5.0	ug/kg wet							
Dichlorodifluoromethane (Freon12)	BRL	10.0	ug/kg wet							
1,1-Dichloroethane	BRL	5.0	ug/kg wet							
1,2-Dichloroethane	BRL	5.0	ug/kg wet							
1,1-Dichloroethene	BRL	5.0	ug/kg wet							
cis-1,2-Dichloroethene	BRL	5.0	ug/kg wet							
trans-1,2-Dichloroethene	BRL	5.0	ug/kg wet							
1,2-Dichloropropane	BRL	5.0	ug/kg wet							
1,3-Dichloropropane	BRL	5.0	ug/kg wet							
2,2-Dichloropropane	BRL	5.0	ug/kg wet							
1,1-Dichloropropene	BRL	5.0	ug/kg wet							
cis-1,3-Dichloropropene	BRL	5.0	ug/kg wet							
trans-1,3-Dichloropropene	BRL	5.0	ug/kg wet							
Ethylbenzene	BRL	5.0	ug/kg wet							
Hexachlorobutadiene	BRL	5.0	ug/kg wet							
2-Hexanone (MBK)	BRL	50.0	ug/kg wet							
Isopropylbenzene	BRL	5.0	ug/kg wet							
4-Isopropyltoluene	BRL	5.0	ug/kg wet							
Methyl tert-butyl ether	BRL	5.0	ug/kg wet							
4-Methyl-2-pentanone (MIBK)	BRL	50.0	ug/kg wet							
Methylene chloride	BRL	50.0	ug/kg wet							
Naphthalene	BRL	5.0	ug/kg wet							
n-Propylbenzene	BRL	5.0	ug/kg wet							
Styrene	BRL	5.0	ug/kg wet							
1,1,1,2-Tetrachloroethane	BRL	5.0	ug/kg wet							
1,1,2,2-Tetrachloroethane	BRL	5.0	ug/kg wet							
Tetrachloroethene	BRL	5.0	ug/kg wet							
Toluene	BRL	5.0	ug/kg wet							
1,2,3-Trichlorobenzene	BRL	5.0	ug/kg wet							
1,2,4-Trichlorobenzene	BRL	5.0	ug/kg wet							
1,1,1-Trichloroethane	BRL	* 5.0	ug/kg wet							
1,1,2-Trichloroethane	BRL	5.0	ug/kg wet							
Trichloroethene	BRL	5.0	ug/kg wet							
Trichlorofluoromethane (Freon 11)	BRL	5.0	ug/kg wet							
1,2,3-Trichloropropane	BRL	5.0	ug/kg wet							
1,2,4-Trimethylbenzene	BRL	5.0	ug/kg wet							
1,3,5-Trimethylbenzene	BRL	5.0	ug/kg wet							
Vinyl chloride	BRL	5.0	ug/kg wet							
m,p-Xylene	BRL	10.0	ug/kg wet							
o-Xylene	BRL	5.0	ug/kg wet							
Surrogate: 4-Bromofluorobenzene	47.9		ug/kg wet	50.0		95.8	70-130			
Surrogate: Toluene-d8	51.4		ug/kg wet	50.0		103	70-130			

VIL_RESP05511

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*Reportable Detection Limit BRL = Below Reporting Limit

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4051078 - SW846 5035A										
Blank (4051078-BLK1)				Prepared: 18-May-04 Analyzed: 19-May-04						
Surrogate: 1,2-Dichloroethane-d4	57.8		ug/kg wet	50.0		116	70-130			
Surrogate: Dibromofluoromethane	52.8		ug/kg wet	50.0		106	70-130			
Batch 4051118 - SW846 5030 Soil MS										
Blank (4051118-BLK1)				Prepared & Analyzed: 18-May-04						
Gasoline Range Organics	BRL		0.08 mg/kg wet							
Surrogate: 4-Bromofluorobenzene (FID)	50.1		mg/kg wet	50.0		100	0-200			
Surrogate: 4-Bromofluorobenzene (PID)	50.0		mg/kg wet	50.0		100	0-200			
LCS Dup (4051118-BSD1)				Prepared: 18-May-04 Analyzed: 19-May-04						
Gasoline Range Organics	268		mg/kg wet	200		134	0-200	0.00	200	
Methyl tert-butyl ether	20.4		mg/kg wet	20.0		102	60-140	11.4	20	
Benzene	20.1		mg/kg wet	20.0		100	60-140	6.72	20	
Toluene	20.5		mg/kg wet	20.0		102	60-140	6.58	20	
Ethylbenzene	19.2		mg/kg wet	20.0		96.0	60-140	9.26	20	
m,p-Xylene	38.1		mg/kg wet	40.0		95.2	60-140	6.73	20	
o-Xylene	20.1		mg/kg wet	20.0		100	60-140	8.88	20	
1,2,4-Trimethylbenzene	18.2		mg/kg wet	20.0		91.0	60-140	4.49	20	
1,3,5-Trimethylbenzene	19.4		mg/kg wet	20.0		97.0	60-140	5.84	20	
Naphthalene	20.6		mg/kg wet	20.0		103	60-140	9.14	20	
Surrogate: 4-Bromofluorobenzene (FID)	50.8		mg/kg wet	50.0		102	0-200			
Surrogate: 4-Bromofluorobenzene (PID)	50.4		mg/kg wet	50.0		101	0-200			

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*Reportable Detection Limit BRL = Below Reporting Limit

VIL_RESP05512

Semivolatile Organic Compounds by GC - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4050953 - SW846 3550B										
Blank (4050953-BLK1)				Prepared: 17-May-04 Analyzed: 18-May-04						
PCB 1016	BRL	31.4	ug/kg wet							
PCB 1221	BRL	31.4	ug/kg wet							
PCB 1232	BRL	31.4	ug/kg wet							
PCB 1242	BRL	31.4	ug/kg wet							
PCB 1248	BRL	31.4	ug/kg wet							
PCB 1254	BRL	31.4	ug/kg wet							
PCB 1260	BRL	31.4	ug/kg wet							
PCB 1262	BRL	31.4	ug/kg wet							
PCB 1268	BRL	31.4	ug/kg wet							
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	23.1		ug/kg wet	31.4		73.6	40-140			
Surrogate: Decachlorobiphenyl (Sr)	22.2		ug/kg wet	31.4		70.7	40-140			
Duplicate (4050953-DUP1)				Source: SA12428-10 Prepared: 17-May-04 Analyzed: 18-May-04						
PCB 1016	BRL	32.6	ug/kg dry		BRL				40	
PCB 1221	BRL	32.6	ug/kg dry		BRL				40	
PCB 1232	BRL	32.6	ug/kg dry		BRL				40	
PCB 1242	BRL	32.6	ug/kg dry		BRL				40	
PCB 1248	BRL	32.6	ug/kg dry		BRL				40	
PCB 1254	BRL	32.6	ug/kg dry		BRL				40	
PCB 1260	BRL	32.6	ug/kg dry		BRL				40	
PCB 1262	BRL	32.6	ug/kg dry		BRL				40	
PCB 1268	BRL	32.6	ug/kg dry		BRL				40	
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	25.4		ug/kg dry	32.6		77.9	40-140			
Surrogate: Decachlorobiphenyl (Sr)	21.0		ug/kg dry	32.6		64.4	40-140			
Matrix Spike (4050953-MS1)				Source: SA12428-10 Prepared: 17-May-04 Analyzed: 18-May-04						
PCB 1016	240	32.6	ug/kg dry	407	BRL	59.0	40-140			
PCB 1260	298	32.6	ug/kg dry	407	BRL	73.2	40-140			
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	21.8		ug/kg dry	32.5		67.1	40-140			
Surrogate: Decachlorobiphenyl (Sr)	19.6		ug/kg dry	32.5		60.3	40-140			
Matrix Spike Dup (4050953-MSD1)				Source: SA12428-10 Prepared: 17-May-04 Analyzed: 18-May-04						
PCB 1016	268	33.4	ug/kg dry	417	BRL	64.3	40-140	8.60	50	
PCB 1260	308	33.4	ug/kg dry	417	BRL	73.9	40-140	0.952	50	
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	22.2		ug/kg dry	33.3		66.7	40-140			
Surrogate: Decachlorobiphenyl (Sr)	21.0		ug/kg dry	33.3		63.1	40-140			

Total Metals by EPA 6000/7000 Series Methods, Prepared by SW846 3050B - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4051033 - EPA200/SW7000 Series										
Blank (4051033-BLK1)				Prepared: 17-May-04 Analyzed: 18-May-04						
Mercury	BRL	0.0010	mg/kg wet							
LCS (4051033-BS1)				Prepared: 17-May-04 Analyzed: 18-May-04						
Mercury	0.888	0.179	mg/kg wet	0.893		99.4	80-120			
Duplicate (4051033-DUP1)				Source: SA12414-01 Prepared: 17-May-04 Analyzed: 18-May-04						
Mercury	BRL	0.184	mg/kg dry		BRL				35	
Matrix Spike (4051033-MS1)				Source: SA12417-01 Prepared: 17-May-04 Analyzed: 18-May-04						
Mercury	0.781	0.198	mg/kg dry	0.460	0.211	124	75-125			
Matrix Spike Dup (4051033-MSD1)				Source: SA12417-01 Prepared: 17-May-04 Analyzed: 18-May-04						
Mercury	0.638	0.192	mg/kg dry	0.447	0.211	95.5	75-125	20.2	35	

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*Reportable Detection Limit BRL = Below Reporting Limit

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VIL_RESP05513

Total Metals by EPA 200 Series Methods - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4051032 - EPA 200 Series										
Blank (4051032-BLK1)				Prepared & Analyzed: 17-May-04						
Selenium	BRL	3.00	mg/kg wet							
Silver	BRL	2.00	mg/kg wet							
Arsenic	BRL	3.00	mg/kg wet							
Cadmium	BRL	0.500	mg/kg wet							
Chromium	BRL	1.00	mg/kg wet							
Lead	BRL	1.50	mg/kg wet							
Barium	BRL	1.00	mg/kg wet							
LCS (4051032-BS1)				Prepared & Analyzed: 17-May-04						
Selenium	0.993	0.0300	mg/kg wet	1.00		99.3	85-115			
Silver	1.01	0.0400	mg/kg wet	1.00		101	85-115			
Arsenic	1.00	0.0300	mg/kg wet	1.00		100	85-115			
Cadmium	1.01	0.0050	mg/kg wet	1.00		101	85-115			
Chromium	0.995	0.0100	mg/kg wet	1.00		99.5	85-115			
Lead	1.03	0.0150	mg/kg wet	1.00		103	85-115			
Barium	0.991	0.0100	mg/kg wet	1.00		99.1	85-115			
Duplicate (4051032-DUP1)				Source: SA12414-01		Prepared & Analyzed: 17-May-04				
Selenium	BRL	3.12	mg/kg dry		BRL				20	
Silver	BRL	2.08	mg/kg dry		BRL				20	
Arsenic	4.50	3.12	mg/kg dry		3.08			37.5	20	QR-05
Cadmium	BRL	0.521	mg/kg dry		BRL				20	
Chromium	6.83	1.04	mg/kg dry		3.45			65.8	20	QR-05
Lead	4.24	1.56	mg/kg dry		2.53			50.5	20	QR-05
Barium	17.1	1.04	mg/kg dry		10.7			46.0	20	QR-05
Matrix Spike (4051032-MS1)				Source: SA12417-01		Prepared & Analyzed: 17-May-04				
Selenium	109	3.32	mg/kg dry	111	BRL	98.2	70-130			
Silver	54.1	2.21	mg/kg dry	55.3	BRL	97.8	70-130			
Arsenic	117	3.32	mg/kg dry	111	5.07	101	70-130			
Cadmium	112	0.553	mg/kg dry	111	2.79	98.4	70-130			
Chromium	659	1.11	mg/kg dry	111	819	NR	70-130			QM-07
Lead	262	1.66	mg/kg dry	111	164	88.3	70-130			
Barium	143	1.11	mg/kg dry	111	37.8	94.8	70-130			
Reference (4051032-SRM1)				Prepared & Analyzed: 17-May-04						
Selenium	1.12	0.0300	mg/kg wet	1.06		106	85-115			
Silver	0.210	0.0200	mg/kg wet	0.203		103	85-115			
Arsenic	0.766	0.0300	mg/kg wet	0.670		114	85-115			
Cadmium	1.07	0.0050	mg/kg wet	1.09		98.2	85-115			
Chromium	0.565	0.0100	mg/kg wet	0.510		111	85-115			
Lead	1.27	0.0150	mg/kg wet	1.33		95.5	85-115			
Barium	0.120	0.0100	mg/kg wet	0.119		101	85-115			

General Chemistry Parameters - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 4050825 - General Preparation										
Duplicate (4050825-DUP1)				Source: SA12360-04		Prepared: 13-May-04 Analyzed: 14-May-04				
% Solids	90.7		%		90.7			0.00	20	

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*Reportable Detection Limit BRL = Below Reporting Limit

VIL_RESP05514

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR-05	RPD out of acceptance range.
vext2	Field Extracted
VOC10	The VOC field preserved soil sample is not within the recommended 1:1 weight to volume ratio. This is based on SW846 methods 5030 and 5035.
VOC6	The production of Acetone and other ketones is commonly seen when using Sodium Bisulfate in the SW 846 5035A extraction technique.
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. The RDL is generally 5 to 10 times the MDL. However, it may be nominally chosen within these guidelines to simplify data reporting. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Validated by:
Hanibal C. Tayeh, Ph.D.
Nicole Brown



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Page 1 of 1

Special Handling:

- ☐ Standard TAT - 7 to 10 business days
- ☐ Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: DAVID CHAPMAN
JACQUES WHITFORD
75 PEARL ST., SUITE 410
PORTLAND, ME 04101
Project Mgr.: D. TODD COFFIN

Invoice To: SAME
24050830
P.O. No.: _____ RQN: _____

Project No.: MEP04127
Site Name: RL WINDHAM
Location: WINDHAM State: ME
Sampler(s): D. CHAPMAN / A. MARTIN

1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid
7=CH₃OH 8=NaHSO₄ 9=_____ 10=_____

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	VOC 8260	GRO 4.2.17	PBS	BECCA METAS (ford)
SA12358-01	TP-2, L-4	5/7/04	0851	G	SO	7/8	2	1			✓			
-02	TP-3, 2-4	5/7/04	0921	G	SO	7/8	2	1			✓			
-03	TP-4, 2-4	5/7/04	0955	G	SO	7/8	4	1			✓	✓		
-04	SS-1	5/7/04	1748	G	SO			1					✓	
-05	SS-2	5/7/04	1752	G	SO			1					✓	
-06	SS-3	5/12/04	1540	G	SO			2					✓	
-07	SS-4	5/12/04	1545	C	SO			1					✓	
-08	SS-5	5/12/04	1550	C	SO			1					✓	

QA Reporting Notes:
(check if needed)

State specific reporting standards
If applicable, please list below.

- ☐ Provide MCP CAM Report
Were all field QC requirements met
as per MADEP CAM Section 2.0?
☐ Yes ☐ No
(Response required for CAM report)

☐ Fax results when available to (_____) _____
☒ E-mail to DCHAPMAN@JACQUESWHITFORD.COM
EDL format _____
Condition upon receipt: ☒ Iced ☐ Ambient ☐ °C 5

Relinquished by:

David Chapm
Fedd

Received by:

via FedEx
TK Knowles

Date:

5/12/04
5/13/04

Time:

1700
10:00

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RESP05516

**PLAN FOR
SELF-IMPLEMENTING CLEANUP OF
PCB REMEDIATION WASTE – PHASE I
7 DEPOT STREET
SOUTH WINDHAM, MAINE**

Prepared for:

**Renee Lewis
Village at Little Falls, LLC
2 Market Street, 6th Floor
Portland, Maine 04101**

Prepared by:

**Ransom Environmental Consultants, Inc.
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Portland, Maine 04101
(207) 772-2891**

**Project No. 046016
November 21, 2005**

**D. Todd Coffin
Maine Certified Geologist No. 310**

VIL_RESP05517

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Table 1: Summary of PCB Analytical Results

FIGURES

Figure 1: Site Location Map
Figure 2: Site Plan: Ground Level
Figure 3: Site Plan: First and Second Floors

APPENDICES

Appendix A: Certification
Appendix B: Laboratory Data Sheets

1.0 INTRODUCTION

On behalf of Village at Little Falls, LLC, Ransom Environmental Consultants, Inc. (Ransom) has prepared this Plan to address Polychlorinated Biphenyl (PCB) Remediation Waste identified at the former Keddy Mill, located at 7 Depot Street in South Windham, Maine (the Site). PCB Remediation Waste has been identified both inside the Site Building and at the exterior of the Site. Ms. Renee Lewis, representative of Village at Little Falls, LLC, has signed the certification statement required by §761.61(a)(3)(E); the certification is attached as Appendix A. A Site Location Map is attached as Figure 1.

Based on the characterization activities performed at the Site, Ransom determined that interior building surfaces and soils beneath and exterior to the building are PCB-contaminated. The source of the PCBs identified at portions of the interior of the Site Building originated from:

1. Release(s) of PCB-mineral oil dielectric fluid (PCB-MODF) from electrical equipment located on the ground floor, first floor, and second floor of the mill building;
2. Tracking of PCBs which originated on the ground and first floors onto surfaces in other parts of the Site Building; and
3. Fuel oil that apparently became contaminated with PCBs that remains in distribution piping inside the mill building, and in some areas has leaked onto floors and walls from this piping.

PCB-contaminated soils were identified in three areas:

1. In a sump located on the ground floor of the former Melt Building;
2. In the Melt Building where broken concrete flooring has exposed sub-grade soils; and
3. In the Storage and Manufacturing portion of the building where broken concrete flooring has exposed sub-grade soils.

Village at Little Falls, LLC intends to remediate PCB-contaminated concrete floors and walls such that PCB concentrations remaining in concrete and other porous materials are reduced to 1 milligram/kilogram (mg/kg) or less. PCB-contaminated soil beneath and exterior to the Site building will be remediated in accordance with 40 CFR 761.61, and appropriate classification of "Low Occupancy" or "High Occupancy" areas.

PCB clean-up at the Site will be undertaken in three phases, each in accordance with the (United States Environmental Protection Agency's (EPA's) self-implementing procedure under §761.61(a):

Phase I – Building Interior Sludge, Dirt/debris and Oily Materials

The initial phase of PCB mitigation involves clean-up of sludge, dirt/debris and oily materials that have accumulated on floors and walls inside the former mill building. This plan addresses cleanup of sludge, dirt/debris, and oily materials containing PCBs inside the building.

Phase II – Building Interior Porous Surfaces

Following removal of the interior sludge, dirt/debris and oily materials, sampling and testing of porous concrete and wood surfaces will be undertaken to determine additional mitigation requirements. Many of these surfaces are covered with a layer of sludge, dirt/debris or oily materials, thus it is proposed that the sludge, dirt/debris and oily materials are removed and properly disposed prior to sampling of the underlying porous surface. This approach will allow improved visual identification of stained surfaces and permit more representative sampling of the porous material for PCB impacts. A separate plan will be presented that details the supplemental testing and methodology for mitigation of interior porous surfaces.

Phase III – Soils

Preliminary testing has identified PCBs in soils both exterior to and beneath the site building. Due to restricted access, additional sampling and testing of soils will be undertaken following partial demolition of the Site Building. A separate plan will be presented that details the supplemental testing and methodology for mitigation of site soils.

The remediation work proposed in this Plan is being undertaken by Village at Little Falls, LLC in order to initiate Site redevelopment activities, which include demolition of the former mill building. In order to facilitate the remediation of this facility, Ransom and Village at Little Falls, LLC respectfully request that this Plan be reviewed and approved by the EPA by December 23, 2005 (30 days from submittal).

Maine Department of Environmental Protection (MEDEP) has reviewed and approved a Voluntary Response Action Plan (VRAP) dated June 8, 2005, and has issued a "No Action Assurance Letter" to Village at Little Falls, LLC and Lumas, Inc. (site owner). The VRAP details the Site background, Site investigation findings and the proposed mitigation plan. MEDEP will issue a "Certificate of Closure" following completion of Site mitigation and review of associated documentation.

2.0 BACKGROUND

2.1 Site Description

The Site consists of a former steel mill located on 7 Depot Road in South Windham, Maine (refer to Figure 1). The approximately 6.5 parcel is bordered by Depot Street acre to the North, Maine Central Railroad tracks to the east, the Presumpscot River to the South and Route 202 to the West. The site was reportedly first developed for industrial use in the 1700s, and over the years uses included a saw mill, grist mill, manufactured wood board mill and the steel mill whose remnants presently occupy the site.

The site is presently occupied by a former mill building constructed primarily of concrete and brick. The majority of the building consists of two levels, including a ground floor/basement that is partially below grade. Structures were added to the building over the years, and historic site plans denote the following uses: boiler house, generator room, press building, melt building, storage and manufacturing, and offices. The forge shop and boiler house have been razed.

2.2 Summary of Previous Investigation Activities

The property has been the focus of several environmental investigations since 1995. The investigation reports reviewed by Ransom include the following:

1. Phase I Limited Environmental Assessment, Lot 7 of Map 38, Windham Township, South Windham, Cumberland County, Maine, by Consla Geotechnical Engineering, March 18, 1993.
2. Environmental Site Assessment, Phase I & II, Former Steel Mill Property, Route 202 and Depot Street, Windham, Maine, by S.W. Cole Engineering, Inc., November 17, 1997.
3. Report on Supplemental Site Investigation, 7 Depot Street, Windham, Maine by Jacques Whitford Company, Inc., March 9, 2004.

The Phase I Limited Environmental Assessment by Consla Geotechnical Engineering identified potential sources of environmental impacts but included no subsurface investigation or chemical testing of soils, sludge or other materials at the Site. The assessment identified numerous tanks, chemical storage containers and operations areas that had the potential to impact the site environment.

Subsurface investigations by S. W. Cole in 1995 and 1996 included completion of twenty-four test pits targeting former storage tanks and other areas of potential concern. Soil samples were screened for volatile organic compounds (VOCs) with a photoionization detector (PID) and six soil samples were tested in a laboratory either for fuel oil, pesticides, PCBs, or heavy metals.

S. W. Cole identified heavy oil-impacted soil at the northern end of the site near Depot Street. The impacted soil was located in the vicinity of a two former above-ground heavy oil storage tanks (now removed). S. W. Cole removed approximately 11 tons of soil impacted by the heavy oil under the oversight of the MEDEP. S. W. Cole identified no significant impacts from pesticides, PCBs or heavy metals during their Site investigation.

In August, 2003, Jacques Whitford completed supplemental investigations including twelve test pits, six hand augers and twenty-three surface soil samples at the 7 Depot Street site to evaluate areas of potential concern identified during previous site investigations. These areas included:

- Two former above ground fuel storage tanks (15,000 and 10,000 gallon capacity) near the railroad tracks on the east side of the site where oil-stained soils were observed during a previous site investigation;
- Two 1,000 gallon underground wastewater tanks adjacent to the north wall of the facility;
- Former 3,000 gallon above-ground fuel tank located at the end of a rail spur on the east side of the site;
- Transformer pad/electrical substation on the south side of the site;
- Former drum storage area at the south end of the former mill building;
- Former garage at the south end of the site; and
- Two floor drains on the ground floor of the main mill building.

Selected soil samples were tested for VOCs (EPA Method 8260-B), diesel-range organics (DRO), the eight RCRA metals, and PCBs. Sampling by Jacques Whitford also included testing of sludge and dirt/debris from floor surfaces inside the mill building for PCBs. The interior PCB sample locations Sampled by Jacques Whitford are shown on Figure 2 and included:

Sample ID	Location/Rationale
SS6	Material from floor sump along south building wall in Melt Building
SS7	Sludge on concrete floor south of maintenance shop, first floor
SS8/SS9	Sludge on concrete floor in maintenance shop, first floor
SS10	Sludge on concrete floor near former transformer, first floor
SS101A/B	Material from floor sump in Melt Building, ground level
SS102	Dirt/debris pile on concrete floor on ground level in Melt Building
SS103	Dirt/debris pile on concrete floor on ground level Melt Building
SS104	Dirt/debris pile on concrete floor on ground level Melt Building

Jacques Whitford collected samples SS6 and SS101 from a floor sump along the south wall in the Melt Building. The sump was about 1.5 ft x 1.5 ft square and contained water at a depth of about 2 ft below the floor level. Hand excavation along the building wall did not identify a discharge pipe from the drain. Jacques Whitford indicated that the drain may have an open bottom or sides under the building floor, with no point discharge.

Samples SS7, SS8/ SS9 (co-located with SS8), SS10, SS102, SS103, and SS104 were composed of sludge that had accumulated on the building's concrete floor. SS7, SS8/SS9 and SS10 were collected from the first floor of the building. Sample locations were selected based on proximity to oil stains, maintenance activities and former electrical equipment, such as transformers.

Total PCBs concentrations of 174 ppm (Aroclor 1254) were detected in material collected from the floor sump located along the south wall of the building basement/ground floor (SS6). Confirmatory sampling from the same drain indicated 262 ppm PCBs (SS101) and 570 ppm PCBs (SS101 split sample).

Material sampled from the surface of the concrete floor inside the building contained total PCBs ranging from 11 ppm in the maintenance shop (SS8) to 138 ppm on the ground floor of the Melt Building (SS103). The PCBs detected included Aroclor 1254 and 1260.